



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/031,973

05/02/2002

Shigeo Takamura

34307

1170

116

7590

02/25/2004

PEARNE & GORDON LLP  
1801 EAST 9TH STREET  
SUITE 1200  
CLEVELAND, OH 44114-3108

EXAMINER

THANH, QUANG D

ART UNIT

PAPER NUMBER

3764

DATE MAILED: 02/25/2004

CO

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/031,973

Applicant(s)

TAKAMURA, SHIGEO

Examiner

Quang D. Thanh

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 1-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3.8.9</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

2. Claims 1-18 are objected to because of the following informalities:

In claim 1, on line 10, " a shaft having a gear and mounted to each of the upper and lower ends of the frame" is confusing and unclear as whether there is only one shaft that is mounted to both upper and lower ends or there is two shafts with each shaft mounted respectively to upper and lower ends, and on line 14, "each roller chain" lacks antecedent basis since there is only "a roller chain" that has been recited; and on line 15 "said shaft bushings" lacks antecedent basis, and also on lines 17-19 "the roller chains" and "the shafts" lack antecedent basis.

In claim 2, p.13, lines 25-26 , "each plate-shaped base portion fixed to the opposite ends of each roller chain" is unclear since the roller chain is a continuous ring having no ends, and p. 14, lines 4-5, "the guide rollers" and "the guide roller portions" lacks antecedent basis.

Art Unit: 3764

In claim 3, p. 14, lines 12, "two-directional side pieces" appears to be incorrect, and the examiner suggests to replace with "side pieces that incline in opposite directions"

The remaining claims are objected to because they depend on an objected claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu (6,039,705).

5. Re claim 1, Wu discloses a unit-type roller drive (fig. 1) comprising: a frame 2 composed of a base portion and upright left and right edge portions (fig. 1); a longitudinal guide slit 2A provided in each left and right edge portions (figs. 1 and 1B);

Art Unit: 3764

shafts having a gear 4/5 and mounted to each of the upper and lower ends of the frame (fig. 1); a roller chain 3 mounted in a ring shape around the upper and lower shafts in meshing with said gears (fig. 1); and a shaft bushing 6 mounted to the roller chain (figs. 3A-B) and fixed to massaging ball rollers 632, the left and right ends of said shaft bushings being mounted in an inserted state in the guide slits 2A (figs. 1B); wherein the roller chains are moved vertically by rotation of the shafts with a drive motor 52 (fig. 1), and in cooperation with the vertical movement of the roller chains, the massaging ball rollers are guided in accordance with the guide slits for vertical movement (col. 2, line 50 to col. 3, line 25).

6. Re claims 2, 4 and 8, each shaft bushing 6 has a plate-shaped base portion 6 fixed to the roller chain and a rising piece 63 (triangular mid piece best seen in fig. 2) standing upright from the surface of the base portion (fig. 2), a pivotal massaging ball roller mount piece 63 (end pieces best seen in fig. 3A) is mounted to the rising piece, the massaging ball rollers 632 are mounted to the massaging ball roller mount piece 63 (fig. 3A); pins 61 projecting outwardly from the back of the base portion, the guide rollers 62 are mounted to the pins to insert the guide roller portions into the guide slits (figs 2 and 2A); sensors ( switches S11) is provided on both upper side edge and lower side edge of the frame 2 (figs. 3A and 4A) to vary the turning direction of the drive motor (col. 3, lines 27-37).

Art Unit: 3764

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Shimomura et al. (JP 405300925A). Shimomura discloses a unit-type roller drive comprising (figs. 1-2): a frame 1 composed of a base portion and upright left and right edge portions (fig. 2); a longitudinal guide slit 22/23 provided in each left and right edge portions; shafts 10/12/13/16/17 having a gear and mounted to each of the upper and lower ends of the frame (fig. 2); a roller chain 14/15 mounted in a ring shape around the upper and lower shafts in meshing with said gears; and a shaft bushing 18 mounted to the roller chain and fixed to massaging ball rollers 24, the left and right ends of said shaft bushings being mounted in an inserted state in the guide slits (figs. 1-2); wherein the roller chains are moved vertically by rotation of the shafts with a drive motor 4, and in cooperation with the vertical movement of the roller chains, the massaging ball rollers are guided in accordance with the guide slits for vertical movement (see abstract and fig. 1).

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto (JP 406165802A). Yamamoto discloses a unit-type roller drive (figs. 2-3) comprising: a frame 2 composed of a base portion and upright left and right edge portions (fig. 2); a longitudinal guide slit 20 provided in each left and right edge portions; shafts 10/12/13 having a gear and mounted to each of the upper and lower ends of the frame; a roller chain 14 mounted in a ring shape around the upper and lower shafts in meshing with said gears; and a shaft bushing 5 mounted to the roller chain and fixed to massaging ball rollers 6, the left and right ends of said shaft bushings being mounted in an inserted

Art Unit: 3764

state in the guide slits 20 (fig. 3 and abstract); wherein the roller chains are moved vertically by rotation of the shafts with a drive motor M (figs. 2-3), and in cooperation with the vertical movement of the roller chains, the massaging ball rollers are guided in accordance with the guide slits for vertical movement (fig. 3 and abstract).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3, 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Nonoue et al. (6,224,563 B1).

11. Re claim 3, Wu discloses the claimed invention including the rising piece 63 has a triangular shape (triangular mid piece best seen in fig. 2) , the massaging ball roller mount pieces 63 (end pieces best seen in fig. 3A) is V- shaped, the massaging ball rollers 632 are mounted to the top ends of side pieces 63 of the V-shaped mount piece 63 (best seen in fig. 2 and 3A), except for a stopper projecting from each of the side pieces. However, Nonoue teaches a massage unit 28 (fig. 5) comprising triangular-shaped rising piece 73, a V- shaped massaging ball roller mount piece (arm 72) having side pieces that incline in opposite directions, massaging ball rollers 70 mounted on top of each side piece, and stopper 77/78 projecting from each of the side pieces for limiting the angle through which the arm 72 is pivotally movable relative to the piece 73.

Art Unit: 3764

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu's device, to include a stopper projecting from each of the side pieces, as suggested by Nonoue et al., for the purpose of limiting the angle through which the arm 72 is pivotally movable relative to the piece 73, thereby allowing the device to perform effective massage along the contour of the user's back.

12. Re claim 9, Wu teaches that sensors ( switches S11) are provided on both upper side edge and lower side edge of the frame 2 (figs. 3A and 4A) interacting with sensors S1 mounted on the bushing 6 to vary the turning direction of the drive motor (col. 3, lines 27-37).

13. Re claim 14, with respect to the bucket-shaped outside frame and the lateral rods having concave portions. Wu already teaches in figures 4-5 that the unit-type roller drive can be installed in the concave back portion of a chair comprising an outside frame 71 having upper and lower lateral rods (fig. 5), therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu's device, to include concave portions of the lateral rods, for the purpose of allowing the unit-type roller drive to be installed and operated along the concave contour of the user's back. With respect to the limitation "bucket-shaped", it would have been an obvious matter of design choice to select a bucket-shaped back portion, since such a modification would have involved a mere change in the form or shape of a component. A change in form or shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976).



Art Unit: 3764

14. Claims 5, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Liang (5,429,585). Wu discloses the claimed invention except it does not disclose a bucket-shaped body portion, left and right blade piece portions, and belt mounted to the blade piece portions. However, Liang teaches that a massaging unit can be installed in the concave back portion of a cushion (figs. 7-8) comprising a bucket-shaped body portion, left and right blade piece portions, and belt 12 mounted to the blade piece portions. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu's device, to include a bucket-shaped cushion having left and right blade piece portions and belt mounted to the blade piece portions, for the purpose of allowing the unit-type roller drive to be installed in this portable cushion thereby allowing the device to be attached to a chair, a car seat and other furniture as desired.

15. Claims 6, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu alone. Wu discloses the claimed invention including an outside frame 71 having upper and lower lateral rods (fig. 5), except it is silent regarding the bucket-shaped and the lateral rods having concave portions. Wu already teaches in figures 4-5 that the unit-type roller drive can be installed in the concave back portion of a chair comprising an outside frame 71 having upper and lower lateral rods (fig. 5), therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu's device, to include concave portions of the lateral rods, for the

Art Unit: 3764

purpose of allowing the unit-type roller drive to be installed and operated along the concave contour of the user's back. With respect to the limitation "bucket-shaped", it would have been an obvious matter of design choice to select a bucket-shaped back portion, since such a modification would have involved a mere change in the form or shape of a component. A change in form or shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

16. Claims 7, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Tseng (5,462,515). Although Wu teaches that the pad-type roller drive may be mounted on a chair to provide different massaging effects, Wu does not disclose a legless chair having a back portion rotatably mounted to a seat portion and the lateral rods having concave portions. However, Tseng teaches the massaging device can be directly applied to the back cushion and seat cushion of a seat, such as a sofa, an office chair and especially a car seat (col. 4, lines 5-8). Any conventional legless car seat is well known in the art to comprise a back portion rotatably mounted to a seat portion. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu's device, to include a legless chair having a back portion rotatably mounted to a seat portion as in the case of a car seat, as suggested by Tseng, for the purpose of allowing the unit-type roller drive to be installed in this the back cushion of a car seat thereby allowing the massage therapy to be applied to a user while driving. With respect to the limitation of the lateral rods having concave portions, since Wu already teaches in figures 4-5 that the unit-type roller drive

Art Unit: 3764

can be installed in the concave back portion of a chair comprising an outside frame 71 having upper and lower lateral rods (fig. 5), therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu's device, to include concave portions of the lateral rods, for the purpose of allowing the unit-type roller drive to be installed and operated along the concave contour of the user's back.

17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu/Nonoue and further in view of Liang (5,429,585). The combined Wu/Nonoue discloses the claimed invention except it does not disclose a bucket-shaped body portion, left and right blade piece portions, and belt mounted to the blade piece portions. However, Liang teaches that a massaging unit can be installed in the concave back portion of a cushion (figs. 7-8) comprising a bucket-shaped body portion, left and right blade piece portions, and belt 12 mounted to the blade piece portions. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu's device, to include a bucket-shaped cushion having left and right blade piece portions and belt mounted to the blade piece portions, for the purpose of allowing the unit-type roller drive to be installed in this portable cushion thereby allowing the device to be attached to a chair, a car seat and other furniture as desired.

Art Unit: 3764

18. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu/Nonoue and further in view of Tseng (5,462,515). Although Wu teaches that the pad-type roller drive may be mounted on a chair to provide different massaging effects, Wu does not disclose a legless chair having a back portion rotatably mounted to a seat portion and the lateral rods having concave portions. However, Tseng teaches the massaging device can be directly applied to the back cushion and seat cushion of a seat, such as a sofa, an office chair and especially a car seat (col. 4, lines 5-8). Any conventional legless car seat is well known to comprise a back portion rotatably mounted to a seat portion. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu/Nonoue's device, to include a legless chair having a back portion rotatably mounted to a seat portion as in the case of a car seat, as suggested by Tseng, for the purpose of allowing the unit-type roller drive to be installed in this the back cushion of a car seat thereby allowing the massage therapy to be applied to a user while driving. With respect to the limitation of the lateral rods having concave portions, since Wu already teaches in figures 4-5 that the unit-type roller drive can be installed in the concave back portion of a chair comprising an outside frame 71 having upper and lower lateral rods (fig. 5), therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Wu/Nonoue's device, to include concave portions of the lateral rods, for the purpose of allowing the unit-type roller drive to be installed and operated along the concave contour of the user's back.

Art Unit: 3764

**Conclusion**

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wu (6,196,983 B1) discloses an auxiliary device for enhancing massaging effect. Laskowitz (3,675,644) discloses a massage apparatus. Furuie et al. (6,200,282 B1) discloses a massage machine of chair type. Hasegawa (4,748,972) discloses a vehicle seat fitted with massaging device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang D. Thanh whose telephone number is (703) 605-4354. The examiner can normally be reached on Monday-Thursday & alternate Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi can be reached on (703) 308-2698. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1148.

Quang D. Thanh  
Patent Examiner  
Art Unit 3764

QT

February 12, 2004

  
Danton D. DeMille  
Primary Examiner